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EXAMINER
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ELHILO, EISA B

ART UNIT	PAPER NUMBER
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1751

DATE MAILED: 04/20/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/838,197

Applicant(s)

CANNELL ET AL.

Examiner

Eisa B. Elhilo

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on January 30, 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-160 is/are pending in the application.
- 4a) Of the above claim(s) 75-156, 159 and 160 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-74, 157 and 158 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 11/14/2005.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

### **DETAILED ACTION**

1        This action is responsive to the decision of Board of Patent Appeals and Interference mailed on January 30, 2006 regarding vacating dismissal mailed January 3, 2006 and consideration of RCE and IDS filed on November 14, 2005.

2        A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 11/14/2005 has been entered.

3        Claims 75-156 and 159-160 are withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to nonelected claims, there being no allowable generic or linking claim. Applicant timely traversed the restriction (election) requirement in Paper No. 7. The pending claims are 1-74, 157 and 158.

### ***Claim Rejections - 35 USC § 102***

4        The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-5, 9-15, 17-24, 26-32, 34-40, 44-50, 52-59, 61-67, 69-73 and 157-158 are rejected under 35 U.S.C. 102(b) as being anticipated by Kolc et al. (US 5,223,252). Kolc (US' 252) teaches a mild alkaline reducing composition for permanently waving or reshaping human hair. The composition comprises mercaptan derivatives such as 2-amino-3-

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mercaptopropic acid, from about 2.0% to about 3.0% of cysteine compound (see col. 4, lines 31-49), amines such as alkanolamine and ammonia, metal hydroxides (see col. 5, lines 65-68) and alcohols such as ethanol and isopropanol (see col. 7, lines 32-33) and other constituents such as fatty alcohols (see col. 6, lines 2-3) and ammonium carbonate (see col. 5, lines 65-66). Kolc teaches all the limitations of the instant claims. Hence, Kolc anticipates the claims.

***Claim Rejections - 35 USC § 103***

5 The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 6-8, 16, 25, 33, 41-43, 51, 60, 68 and 74 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kolc et al. (US 5,223,252) in view of Mougin et al. (5,753,215).

The disclosure of Kolc (US' 252) is summarized above. The reference fails to teach a composition comprising organic nucleophiles such as arginine and lysine as claimed in claims 6-8 and 41-43. Further, the reference fails to teach alkali metal salts, alkaline earth metal salts, organic addition salts or inorganic addition salts as claimed in claims 16, 25, 33, 51, 60 and 68. Furthermore, the reference does not teach or disclose organic nucleophile in an amount of 0.2% as claimed in claim 74.

However, the reference teaches a composition comprising organic nucleophile such as cysteine compound (see col. 4, lines 31-49). Further, the reference teaches a composition comprising acids, bases and buffers (see col. 7, lines 25-26) that generate the desired salts.

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Mougin (US' 215) in analogous art of hair cosmetic composition teaches a hair straightening composition (see col. 6, lines 45-49). The composition comprises organic nucleophiles such as lysine, arginine or cystine and polyvalent metal salts such as chloride, nitrates, acetate, carbonate and sulphates (see col. 4, lines 26-31).

Therefore, in view of the teachings of the secondary reference, one having ordinary skill in the art at the time the invention was made would have been motivated to modify the primary reference by incorporating the lysine, arginine compounds and polyvalent salts as taught by Mougin to make such a composition. Such a modification would be obvious because the primary reference teaches and suggests the use of cysteine, which is a similar compound to cystine as taught by Mougin. Also, the primary reference teaches a composition that comprises acids, bases, buffers and metal hydroxides which all react together to generate the metal salts and, thus, a person of ordinary skill in the art would expect such a composition to have similar properties to those claimed, absent unexpected results.

With respect to claim 74, it would have been obvious to one having ordinary skill in the art at the time the invention was made to optimize the amount of the nucleophile used in the composition in order to get the maximum effective amount, *See In re Boesch*, 617 F.2d 272, 276, 205 USPQ 215, 219 (CCPA 1980).

***Response to Applicant's Arguments***

6 Applicant's arguments filed on 11/14/2005 have been fully considered but they are not persuasive.

With respect to the rejection of the claims under 35 U.S.C. 102(b) as being anticipated by Kolc et al. (US' 252), Applicants argue that Kolc does not expressly or inherently teach the

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composition has a pH value effective to lanthionize the keratin fibers as claimed. Applicant also argues that Kolc teaches a composition that comprises a pH of 7.5, which is not sufficient to lanthionize hair. To support this argument applicants submitted pages from "Milady's Hair Structure and Chemistry Simplified," pp.191-192 which define the differences between chemical relaxers and lanthionization and to indicate that only highly alkaline products such as sodium hydroxide and potassium hydroxide that afford pH levels between 12 and 13.5, can cause lanthionization.

The examiner respectfully disagrees with the above arguments because of the following reasons.

"A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." *Verdegeaal Bros. v. Union Oil Co. of California*, 824 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). "When a claim covers several structures or compositions, either generically or as alternatives, the claim is deemed anticipated if any of the structures or compositions within the scope of the claims is known in the prior art." *Brown v. 3M*, 265 F.3d 1349, 1351, 60 USPQ2d 1375, 1376 (Fed. Cir. 2001). In this case Kolc (US' 252) teaches a mild alkaline reducing composition for permanently waving or reshaping human hair. The composition comprises an organic nucleophile cysteine in the amount presented from about 2.0% to about 3.0% (see col. 4, lines 44-49) and metal hydroxides as claimed (see col. 5, lines 65-68), and, thus, the reference's composition within the scope of the claims and is known in the prior art as shown above. Therefore, the claims are anticipated by Kolc et al. (US' 252).

With respect to applicant's argument that the reference fails to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., the pH values of the claimed composition) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

Further, applicant shows on record the criticality of the amounts of the organic nucleophile in the claimed relaxing composition (see specification page 23, Table 2) wherein the organic nucleophile when presented in the amount of 0.1% to 3% leads to greatest relaxing efficiency (100% RE) while a composition that comprises more than 3% of organic nucleophiles leads to lowest relaxing efficiency (60% RE) even at high pH values such as 13.99 or 14.00. Therefore, applicant has not shown on record the criticality of the pH values in the claimed composition or even claimed a relaxing composition with specific range of pH values.

With respect to the applicant's argument based on the document of "Milady's Hair Structure and Chemistry Simplified," pp.191-192, the examiner respectfully disagrees with the above argument because the same document of "Milady's Hair Structure and Chemistry Simplified," teaches that the low pH reducers are used as the relaxers and are recommended for thin or brittle hair (see page 191, paragraph 5). The document further teaches that lanthionization also interferes with permanent wave procedures (see page 192, paragraph, 6). Therefore, Kolc's composition is capable of lanthionizing the keratin fibers.

With respect to the rejection of claims 6-8, 16, 25 and 33 under 35 U.S.C. 103(a) as being unpatentable over Kolc et al. (US' 252) in view of Mougin et al. (US' 215), Applicant argues that the office has failed to establish a prima facie case of obviousness because neither Kolc nor

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Mougin teaches a composition for lantionizing keratin fibers. Applicant also argues that Mougin teaches away from using its composition at such a high pH and there is no suggestion or motivation to modify the composition of Kolc by incorporating the lysine, arginine compounds and polyvalent salts disclosed in Mougin.

The examiner's position is such that the arguments are not found persuasive because of the following reasons.

In establishing a *prima facie* case of obviousness, three criteria must be met. See *in re Vaeck*, 947 F.2d. 488, 20 USPQ 2d 1438 (Fed. Cir. 1991). First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. (see MPEP 2143).

In this case the three criteria have been met, because both references are in the same art of hair cosmetic compositions that are used for waving or reshaping the hair as taught by Kolc (see abstract) and also used for styling or shaping hair as taught by Mougin (see abstract). Kolc et al. (US' 252) as primary reference clearly teaches a composition comprising organic nucleophile cysteine ( $\alpha$ -amino- $\beta$ -thiolpropionic acid), a metal hydroxide as a hydroxide ion generator (see col. 4, lines 35-40 and col. 5, lines 65-66) and acids, bases and buffers (see col. 7, lines 25-26) that generates the desired salts. Mougin et al. (US' 215) as a secondary reference in analogous art clearly teaches and discloses the equivalence between organic nucleophiles lysine, arginine and cystine [3,3'-dithiobis(2-aminopropanoic acid)] and also teaches polyvalent metal salts such as chloride, nitrates, acetate, carbonates and sulfates (see col. 4, lines 26-35).



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Therefore, there is a sufficient motivation to one having ordinary skill in the art to incorporate organic nucleophiles such as lysine and arginine which are equivalent to cystine as a derivative of propanoic acid which is similar to cysteine and polyvalent metal salts such as chloride, nitrates, acetate, carbonates and sulfates as taught by Mougin et al. (US' 215) in the composition of Kolc et al. (US' 252) and would expect that the use of lysine and arginine and the metal salts as taught by Mougin et al. would be similarly useful and applicable to the analogous composition taught by Kolc et al.

With respect to the applicant's argument that Mougin et al. (US' 215) teaches away from using its composition at such a high pH, the examiner's position is that, the higher ranges of the pHs have not been recited in any of the instant claims. Furthermore, applicants have not shown on record the criticality of the high pH of the claimed composition over the compositions of the prior art of record. Therefore, the prima facie case of obviousness has been established.

With respect to the declaration provided by the applicant to show that the composition of the prior art of record does not have a sufficient high pH value to lanthionize hair, the examiner's position is that the declaration is not commensurate in the scope with the claims because the "objective evidence of nonobviousness must be commensurate in the scope with the claims which the evidence is offered to support," In other words, the showing of unexpected results must be reviewed to see if the results occur over the entire claimed range. *In re Clemens*, 622 F.2d 1029, 1036, 206 USPQ 289, 296 (CCPA 1980). See also *In re Gransselli*, 713 F.2d 731, 741, 218 USPQ 769, 777 (F3d. Cir. 1983).

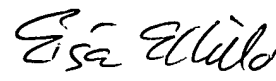
***Conclusion***

7 The remaining references listed on from 1449 have been reviewed by the examiner and are considered to be cumulative to or less material than the prior art references relied upon in the rejection above.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Eisa B. Elhilo whose telephone number is (571) 272-1315. The examiner can normally be reached on M - F (8:00 -5:30) with alternate Friday off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Douglas McGinty can be reached on (571) 272-1029. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
Eisa Elhilo  
Primary Examiner  
Art Unit 1751

March 3, 2006